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ABSTRACT

The Local Assessment Package (LAP) is a computer-assisted system designed to evaluate learner outcomes associated with local school curriculum and assessment centers. LAP is a reporting system that provides information concerning student achievement at the classroom, school, and district levels. The basic unit of LAP is the student data file. The basic record consists of one line of information for each student (the student's identification number and item responses). An item to object and/or goal map is then constructed to indicate which assessment items will be reported by LAP. School, classroom, goal, and objective labels are then entered. The final step consists of selecting the LAP reports and options that provide the best match to the local assessment needs. LAP begins by reporting the objective to item mapping, by goal, the goal labels, the objective labels, and mastery information. Student data, by objective, can be obtained for individual classrooms and schools and for the district. In using LAP reports, administrators should point out the broad range of educational and community factors influencing test performance and student achievement. When coupled with an understanding of the test and its construction, these reports can aid educators in planning instruction and in judging the relative strengths of local academic programs. An outline of computer system requirements, samples of optional LAP reports, and a LAP information worksheet are appended. (TJH)

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Computerized Assessment Profiles for Evaluating Learner Goals

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Introduction

Over the past five years there has been an enormously successful effort on the part of public opinion leaders to reposition the image of the school as a significant social institution. Many convincing arguments have been made linking education with the tasks of reducing unemployment and addressing the lack of competitiveness of American industry. Schools at the secondary level have benefitted from the successful advocacy of the central place of education in the solution of many of the problems of the American economy. This attitude change towards the basics of a "A Nation at Risk' involves the traditional core disciplines of the academic secondary schools as contributing to the hoped-for economic revitalization.

The result of this movement has been dramatic at the secondary school level. Student enrollments and course offerings in mathematics and science have increased substantially while simultaneously enrollments in such areas as vocational education, home economics and industrial arts have declined (ECS conference proceedings, 1988). Scores on the Scholastic Aptitude Test (SAT), a widely used test designed to measure aptitude for college and university studies, have increased in some states. Although there appears to be a move forward with increasing performance on these measures, there is a need to analyze and apply the performance of students on local assessments. Recent reform in many states has focused on each school district providing a systematic form of evaluation of the learning process at specified grades and subject areas.

By providing essential information for the development, operation and evaluation of education testing and measurement represents one of the critical

elements of the educational environment . For this information to be useful it must be relevant to the specific instructional system with which one is concerned. Although the values and goals of some districts may require information about other districts evaluation systems it is clearly the case that different education environments have different informational requirements. It is important to remember that the design of testing and measurement procedures must be preceded by specification of the information needs for which these procedures are intended. The required information is usually well known such that a local testing program can be designed to satisfy these requirements.

A fundamental task of local assessment is to provide information for making basic, essential decisions with respect to education's instructional design and operation. Four major steps are typically involved in the analysis of instructional systems. These four are the 1) analysis of the subject-matter domain under consideration, 2) diagnosis of the characteristics of the learner, 3) design of the instructional environment, and 4) evaluation of learning outcomes/goals.

The focus of this paper is to describe an analysis system focusing on the fourth step - evaluating learning outcomes. This often includes providing information which describes the extent to which the acquired behavior of the learner approaches performance criteria and the extent to which the designers' values have been attained.

Any accurate assessment of learning outcomes must measure what has actually been learned. To determine the elements of what is learned requires information about the details of the course and the instructional activities. This includes both content and process with reference to the specified

performance criteria. When learners demonstrate that they have reached some prespecified criteria, it is said that the learner has attained mastery of that instructional objective. Interpretations of this kind of measurement are often based on criterion-referenced tests.

Measurement in instruction and learning is concerned with providing data, assessments and descriptions of the learner performance. The assessment of student performance is often used to evaluate the overall effectiveness of an instructional approach. All these measurements are used for making decisions in the course of developing and improving an instructional system that examines both process and overall outcomes. This is typically done with systematic sets of examinations throughout the year or at the end of semester.

Standardized achievement tests have been widely used for purposes of local monitoring in school districts for decades. These results routinely serve as indicators for informing state and national educational policy. At the national level and state level, standardized achievement tests were used as outcomes in virtually all of the major large-scale evaluation of educational programs (e.g., Projects Head Start and Follow Through, ESEA evaluation, the Sustaining Effects Study), and in studies of school effects and educational productivity.

We recognize that standardized tests typically reflect curriculum over a broad array of schools and districts using different textbooks, syllabi, and instructional methods. As such these tests represent a common standard by which to measure progress during a year of instruction. But it must be recognized that strengths for some purposes represent weaknesses for others. The intent of standardized tests to cover the broad spectrum of local orientations invariably means that the content of the tests imperfectly aligns

with the curricular goals of any single local district and yet more imperfectly with the specific instructional goals and content in a particular classroom.

Many of the potential consequences of the mismatch between content of a standardized test and what is taught in a teacher's classroom are well known. First, studies (e.g., Floden, Freeman, Porter, & Schmidt, 1980; Hoepfner, 1978; Jenkins & Pany, 1976; Schmidt, 1983) indicate that standardized achievement tests and textbooks exhibit substantial variation in content coverage. Second, we know that the amount of overlap between what is taught and what is tested is strongly related to how well students perform on tests (Barr and Dreeben, 1983; Cooley & Leinhardt, 1980; Husen, 1967; Leinhardt, 1983; Leinhardt & Seewald, 1981; Muthen, 1989). Results indicate that programs emphasized a particular set of curriculum objectives do better on tests designed to measure those objective than programs with different emphases (e.g., Walker & Schaffarzik, 1974). This generalization is robust as it fits across a wide variety of grade levels and subject matters.

Measuring the Cognitive Content and Structure of Knowledge

Evaluations are often based solely upon instruments providing but a single measure - student ability to accurately process the problems presented. This leaves the evaluator unable to distinguish students receiving the correct answer with full conceptual understanding from those students making a lucky guess or possessing a poorly developed knowledge structure. It is important to remember that instruction affects both the cognitive content and structure

of student knowledge (Commission on Reading, 1985; Connell, 1988). Responses to test items reflect student's knowledge and are responsive to instruction.

For example, consider a pretest and posttest which contain the same questions. In this case some test questions retain their meaning over both occasions while others change in terms of the content of the students' cognitive structure or the cognitive strategies students employ to accomplish the task. A paraphrase -type question from a reading comprehension might be answered correctly at the pretest by those students familiar with the topic of the passage. After instruction that enhances comprehension processing (Rumelhart & Ortony, 1977), those students who successfully mastered the instruction would now answer correctly regardless of prior exposure to passage content, and even those student familiar with the passage content could tap new skills to generate their responses.

Information concerning the concepts used by successful and unsuccessful children becomes invaluable in determining the domain knowledge, heuristic and control strategies used. This information is critical when attempting to design effective learning environments (Collins, Brown & Newman, in press). Yet, total summary scores cannot reflect such changes in students' cognition associated with instruction. Instead tests need to be designed and analyzed in a manner that directly attends to this purpose (Curtis & Glaser, 1983; Harnisch, 1983, 1987; Harnisch & Linn, 1982; Tatsuoka, 1983; Tatsuoka, Linn, Tatsuoka & Yamamoto, 1988).

Currently, cognitive psychologists and psychometricians have begun to construct tests and develop analytical methods that use response patterns to identify procedures students use in responding to test items. One value of these methods is that they help to diagnose procedural bugs (Brown & Burton,

1978; Connell & Harnisch, in press; Davis, 1979; Harnisch, 1983; Harnisch & Linn, 1981, 1982; Harnisch & Tatsuoka, 1983; Tatsuoka, 1983, 1985, 1987, in press; Tatsuoka & Tatsuoka, 1987; Tatsuoka, Linn, Tatsuoka & Yamamoto, 1988) that result from lack of instruction or poor instruction. In the next generation of research on this topic these developments will likely be organized in a form that classroom researchers can use to help to identify what has been taught, how it has been taught and how well it has been taught.

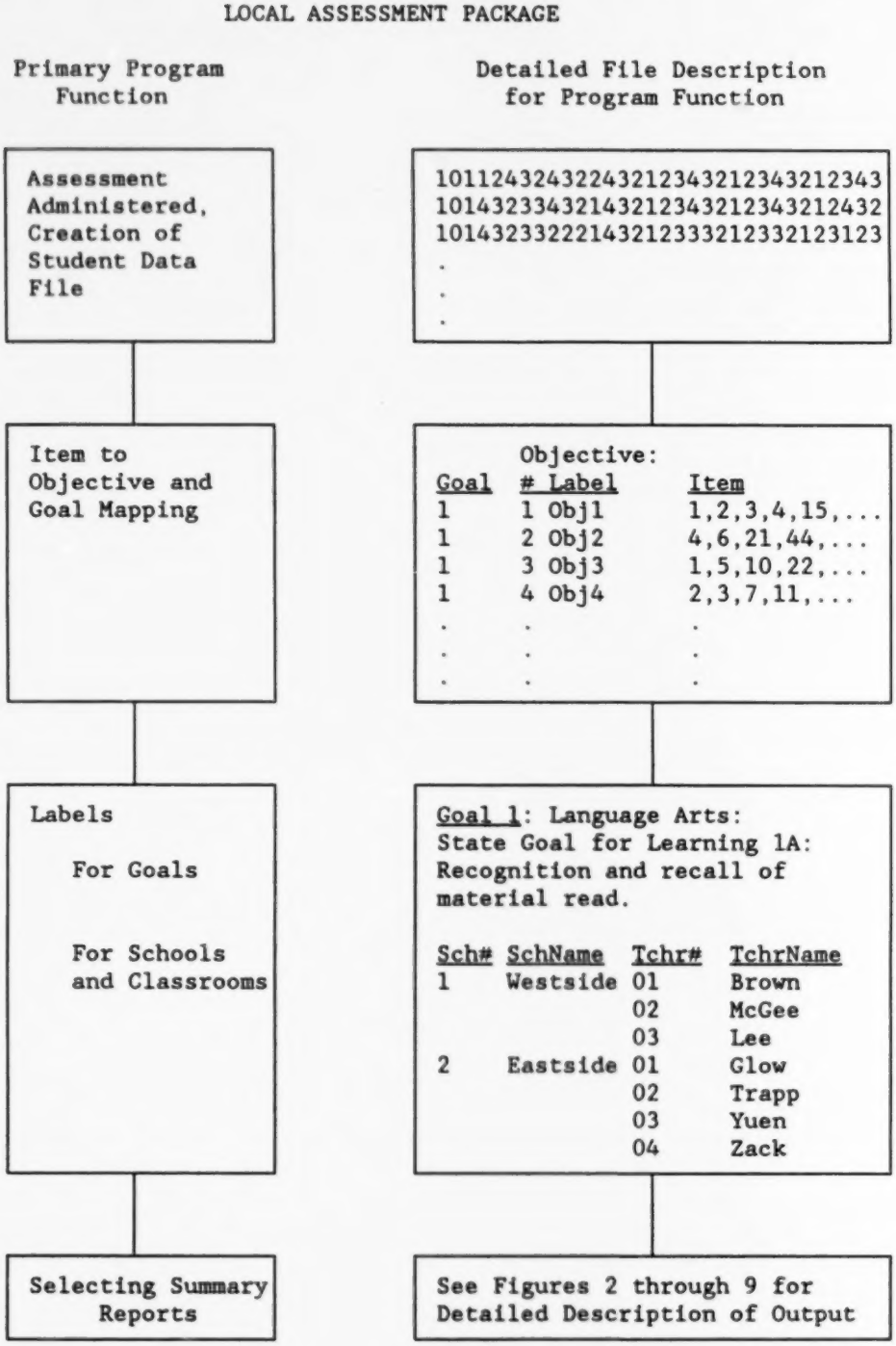
We will discuss one particular reporting system that matches well the learning process with the needs of local district reporting audiences. Additional systems for reporting (See Switzer & Connell, 1989) give detailed perspectives on the utility of other systems.

Using LAP

This paper focuses on the features of a newly developed reporting system, the Local Assessment Package (LAP), for local school curriculum and assessment centers (Harnisch, Jenkins & Switzer, 1989). LAP is a reporting system that provides information concerning student achievement at the classroom, school and district level (see Appendix A for LAP system requirements and ordering information). LAP summary reports of student achievement can provide important information about proficiency levels in each fundamental learning area. Tests of educational outcomes with specific objective/goal mappings may be used in conjunction with LAP to measure student performance on the local curriculum.

Actual use of LAP follows closely the flowchart shown in Figure 1. Following the selection and administration of an assessment instrument a

Figure 1. LAP Application Flowchart



student data file is created. This file consists of one line of information for each student containing the student's ID and item responses. The student data file may be produced locally using a word processor capable of producing an ASCII output file or using an optical mark reader. It is also possible to use data resulting from national standardized testing by purchasing an ASCII data file from the test supplier. An item to objective and/or goal map is then constructed showing which assessment items will be reported by LAP. School, classroom, goal and objective labels are then entered. Appendix B contains a sample worksheet suitable for collecting and recording all of this information prior to running LAP. The final step consists of selecting which of the LAP reports and options provides the best match to the local assessment needs.

Technical expertise is not required for LAP use. However, users should be familiar with the test content, the LAP reports, and appropriate techniques for utilizing results locally. It is desirable for users to be familiar with standard setting and factors influencing test performance.

Test Content

In using data from tests to guide instruction, it is essential the test user understand clearly the skills required to achieve high scores. Such familiarity can be obtained by evaluating typical test blueprints that include item to objective mappings and sample test questions. Familiarity can be enhanced by actual inspection of the test itself. This helps provide a clear understanding of the actual range of required skills. For locally developed assessments such efforts are not needed, as the test developers typically understand what types of achievements the scores represent.

The LAP Reports

LAP begins by reporting the objective to item mapping, by goal, the goal labels, the objective labels, and mastery information (Figure 2). This report is useful for checking the accuracy of the input files.

Figure 2. Goal/Obj/Item Mapping

LEARNER GOAL 1 : Language Arts
State Goal for Learning 1A:
Recognition, recall, and summarization of material read.

obj#	name	#items	#for mastery	list of items
1.	Obj1	7	5	1 2 3 4 15 26 33
2.	Obj2	2	1	6 17
3.	Obj3	3	1	5 10 19
4.	Obj4	5	3	1 2 7 11 16
5.	Obj5	4	2	2 8 12 97
6.	Obj6	4	2	4 9 18 96
7.	Obj7	4	2	5 13 20 95
8.	Obj8	3	1	12 21 94
9.	Obj9	2	1	14 93
10.	Obj10	4	2	22 23 24 92

Figure 3 contains an example of the second page of the LAP report. The student totals for each school and the district, overall exam results (percent correct), and the percent correct for each goal by school are given.

Figure 3. Overall Results

Course: Reading Exam 6 Date: 3/20/1989

	Eastside	Westside	District
Number of Students	89	226	315

OVERALL EXAMINATION RESULTS

	Eastside	Westside	District
Per Cent Correct	65.8	59.4	61.2

LEARNER GOAL 1 : Language Arts
State Goal for Learning 1A:
Recognition, recall, and summarization of material read.

	Eastside	Westside	District
Per Cent Correct	69.6	63.6	65.3

Class performance at the goal, objective and item level is conveniently summarized in the LAP reports. LAP makes available specific classroom information to teachers concerning strengths and weaknesses in each of the objective areas. For example, the classroom percent corrects for each goal (Figure 4) and each objective (Figure 5) are listed, with the school and district averages at the end of each line. To aid a teacher in planning instruction, it is helpful to compare classroom and district results at the goal and objective levels. This quickly identifies areas in need of improvement. Examining the extreme peaks and valleys in a LAP class profile provides useful information about specific strengths and weaknesses. This same approach can be used at the departmental level by comparing school and district results to identify skills in need of reinforcement.

Figure 4. Goal Percent Corrects

Course: Reading Exam 6 School: Westside Date: 3/20/1989

Learner Goal Number	Total No of Items	Percent Correct per Section (Size) Glow (26)	Trapp (25)	Yuen (26)	Zack (28)	Stone (29)	...	Average Percent Correct School (226)	District (315)
1	32	64.2	58.0	53.4	64.7	61.3	...	63.6	65.3
2	27	49.4	48.6	45.6	58.7	52.5	...	54.7	56.7
3	17	46.2	48.0	48.0	63.2	48.1	...	54.4	56.1
4	20	57.7	58.2	58.8	66.1	58.3	...	63.5	65.3
Total	96	55.5	53.6	51.4	63.1	55.9	...	59.4	61.2

Figure 5. Objective Percent Corrects

Course: Reading Exam 6 School: Westside Date: 3/20/1989

LEARNER GOAL 1 : Language Arts
State Goal for Learning 1A:
Recognition, recall, and summarization of material read.

Learner Objective	Total No of Items	Percent Correct per Section (Size) Glow (26)	Trapp (25)	Yuen (26)	Zack (28)	Stone (29)	...	Average Percent Correct School (226)	District (315)
Obj1	7	69.8	66.9	58.8	69.9	67.0	...	69.3	72.1
Obj2	2	63.5	62.0	50.0	76.8	65.5	...	66.2	66.2
Obj3	3	70.5	70.7	59.0	77.4	74.7	...	72.4	74.0
Obj4	5	74.6	74.4	60.8	73.6	77.2	...	75.7	78.1
Obj5	4	64.4	61.0	51.0	62.5	58.6	...	62.7	64.5
Obj6	4	70.2	70.0	63.5	72.3	65.5	...	72.5	73.7
Obj7	4	65.4	54.0	51.0	58.9	59.5	...	60.2	61.9
Obj8	3	47.4	34.7	42.3	44.0	39.1	...	45.3	47.2
Obj9	2	48.1	42.0	44.2	58.9	46.6	...	54.2	55.7
Obj10	4	67.3	54.0	51.9	63.4	60.3	...	63.1	64.0
Total	32	64.2	58.0	53.4	64.7	61.3	...	63.6	65.3

The LAP user may choose up to four optional LAP reports listing individual item percent corrects. All four contain the percent correct for each class, as well as the school and district averages, with a separate report printed for each school. One report contains a listing of all the test items in numerical order (see Figure 6). For those who desire this information in a different format, there are three other options (see Appendix C). One contains the listing of all the test items, in numerical order, grouped by Learner Goal. Another contains the listing of test items, grouped by Learner Goal, sorted by difficulty (at the district level). The last contains a listing of all the test items sorted by item difficulty at the district level.

Figure 6. Items Percent Corrects

Course: Reading Exam 6 School: Westside Date: 3/20/1989

ITEM SUMMARY: A listing of items in numerical order

Item Number	Percent Correct per Section (Size) Glow (26)	Trapp (25)	Yuen (26)	Zack (28)	Stone (29)	...	Average Percent Correct School (226)	District (315)
1	65.4	96.0	42.3	78.6	72.4	...	75.2	78.1
2	88.5	84.0	73.1	75.0	82.8	...	82.7	86.0
3	46.2	48.0	50.0	57.1	55.2	...	55.8	59.0
4	65.4	72.0	53.8	75.0	65.5	...	72.6	75.2
5	88.5	84.0	80.8	89.3	89.7	...	86.7	87.3
6	46.2	52.0	42.3	71.4	51.7	...	57.5	57.1
7	53.8	48.0	50.0	64.3	51.7	...	59.3	61.9
8	84.6	92.0	69.2	96.4	86.2	...	87.6	89.2
9	92.3	96.0	80.8	85.7	89.7	...	88.9	88.9
10	84.6	80.0	61.5	85.7	79.3	...	78.3	79.0
.	.						.	.
.	.						.	.
.	.						.	.
96	30.8	28.0	38.5	57.1	37.9	...	46.9	48.9
97	26.9	24.0	15.4	21.4	24.1	...	25.2	26.7
Total	55.5	53.6	51.4	63.1	55.9	...	59.4	61.2

Another optional report contains the percentage of the students scoring above the indicated mastery score for each objective at the classroom, school, and district levels (see Figure 7). The objectives are listed in numerical order, and reported along with the mastery information is the number of items contained in each objective and the number of items needed for mastery. A separate report is printed for each school.

ISAP reports consist of lists of students who fail to master each objective (see Figure 8). There is one report for each section of each school. A final report contains a listing of the students who did not master a specified number of objectives, which is organized by section within school (Figure 9).

Figure 7. Mastery Analysis

Course: Reading Exam 6 School: Westside Date: 3/20/1989

MASTERY ANALYSIS: Percent of Students Mastering each Learner Objective

Learner Obj Number	Total No of Items	Needed for Mastery	% Mastering per Section Glow (26)	Trapp (25)	Yuen (26)	Zack (28)	...	Percent School (226)	Mastering District (315)
1	7	5	61.5	64.0	50.0	67.9	...	65.5	69.5
2	2	1	92.3	80.0	76.9	92.9	...	88.5	87.6
3	3	1	92.3	88.0	84.6	96.4	...	92.0	94.0
4	5	3	84.6	76.0	61.5	82.1	...	82.3	84.8
5	4	2	92.3	88.0	69.2	89.3	...	86.7	88.3
6	4	2	92.3	92.0	76.9	75.0	...	85.4	87.3
7	4	2	84.6	80.0	73.1	71.4	...	80.1	82.2
8	3	1	88.5	72.0	65.4	75.0	...	80.1	81.9
9	2	1	73.1	60.0	73.1	78.6	...	74.8	77.5
10	4	2	88.5	64.0	69.2	78.6	...	79.2	79.7
.	.	.	.					.	.
.	.	.	.					.	.
.	.	.	.					.	.
39	2	1	80.8	68.0	69.2	78.6	69	77.4	80.6
40	2	1	65.4	84.0	76.9	78.6	79	79.2	80.0

Figure 8. Students With Objective Non-mastery

Course: Reading Exam 6 Date: 3/16/1989

School: Westside Section 4 : Zack

Objective	Students Not Mastering Objective				
1. Obj1	167	170	172	173	174
	176	181	186	194	
2. Obj2	170	173			
3. Obj3	170				
4. Obj4	170	172	176	181	189
5. Obj5	170	176	190		
6. Obj6	167	170	172	173	174
	176	187			
.					
.					
.					
39. Obj39	167	170	172	173	182
	194				
40. Obj40	167	172	173	174	177
	187				

Figure 9. Students With Inadequate Number of Mastered Objectives

Course: Reading Exam Grade 6 Date: 3/16/1989

Summary of Total Objective Mastery Level

School Name	Section Name	ID Number(s) of students mastering fewer than 28 of the 40 objectives			
Eastside	Brown	2	5	8	
Eastside	McGee	12	14	20	23
Eastside	Lee	29	31	36	
Eastside	White	45	47	50	53
Eastside	Leis	57	63		
Eastside	Hoegl	76			
Westside	Glow	91	92	102	104
		108	111	113	
Westside	Trapp	119	121	122	125
		126	128	129	132
		134	135		
Westside	Yuen	143	144	145	147
		148	149	151	154
		156	161	164	
Westside	Zack	167	170	173	174
		176	194		
Westside	Stone	195	196	197	198
		202	203	204	207
		211	214	215	218
		219			
Westside	Reum	225	227	228	229
		232	236	238	239
		240	241		
Westside	Hathe	244	246	250	256
		257	262	263	
Westside	Dwyer	268	272	287	

Utilizing Test Results Locally

Relating student information to educational decisions demands insight and imagination. Educators must use professional judgment in dealing with test data. Inferences from test data valid for one school or student might be invalid for another school or student.

Periodic local assessment should provide a dependable, objective basis for judging relative strengths and weaknesses of local academic programs. Trends may be documented by regular examination of school and district averages on systematic cohorts. Use of LAP reports provides a year to year evaluation of school and district performance at the goal and objective levels.

LAP reports provide various formats allowing multiple uses of test results. In using and interpreting LAP reports, administrators need to point out the broad range of educational and community factors influencing test performance and student achievement. Student achievement is not a product of teaching alone and is not solely the responsibility of the school. Also, administrators need to be realistic in setting standards for school achievement. Not every district should expect its students to score 70 percent or better on each objective.

Standard Setting

There are no foolproof methods for defining educational standards. As faculty and district administrators attempt to set reasonable standards, the most crucial steps are subjective. Local districts can, however, make general efforts in determining reasonable expectations. Local achievement data from a number of areas can be combined with repeated administrations of the test. This furnishes objective information for use in establishing expectations.

Although not yielding absolute standards, this approach provides a normative frame of reference for establishing expected performance within the local system. A current version of LAP allows the user to specify the objective performance criterion and then reports the percentage of students meeting that expectation at the classroom, school and district level. The current release of LAP allows the user to identify the students not meeting each specified objective performance level by listing the appropriate student ID's. In addition, the user has the choice of selecting the students that fail to master a particular percentage of the objectives. For example, if you wanted to identify only the number of students failing to master 70 percent of the skills, LAP would provide a listing of students by classroom section that failed to meet this particular criterion.

Factors Influencing Test Performance

Administrators and other test users should remember that a major purpose of assessment is to provide specific information about the needs and abilities of students. Using student test results for staff evaluation quickly destroys their value for instructional improvement. It is undeniably true that the quality of teaching influences student achievement, but, it is important to remember that countless other factors also exert an influence. It is important for the public to remember that tests reflect the sum of a student's previous education experiences and it is unfair to hold any group of teachers wholly responsible for a class's total achievement. For example, a student's normal development (e.g., growing older, stronger) may not be considered a part of the assessment, but can affect the results (Harnisch, Fisher & Connell, in press). This is also true of the average score for any group of students.

Performance on local assessment is greatly influenced by the out-of-school experiences of students. Some students live in an environment in which academic excellence is encouraged and rewarded; others come from backgrounds in which learning and achievement are not stressed. A poor learning environment in the home cannot be offset by the school.

Summary

In order to maximize the use of student assessment information, it is important to become familiar with the content of the assessment instrument. Of particular importance is the item to objective to goal mappings and the manner in which the test attempts to capture the cognitive content and structure of student knowledge. Using the item to objective to goal mappings and student response information the LAP reporting system summarizes student achievement at the classroom, school, and district levels. When coupled with an understanding of the test and it's construction these reports can aid educators in planning instruction and in judging the relative strengths of local academic programs.

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Appendix A

LAP System Requirements

LAP requires an IBM PC, XT, AT, PS/2, or compatible, and a hard drive. However, we strongly recommend that you use an 80286 or 80386 based machine, (especially for objective mastery analysis), as using a PC or XT for LAP analysis might prove to be unacceptably slow.

There are no specific memory requirements for LAP. The amount of RAM memory required by LAP depends on the size and details of the data set and the blueprint of the assessment to be run: how many goals, objectives, schools, and sections in each school. LAP can process assessment files that contain as many as 20 goals, 245 objectives, 245 items, 9 schools, and 20 sections/classrooms per school.

Ordering Information

Order can be by check, payable to the University of Illinois, or purchase order. For payment by check, send name, school address, and phone number to the address below. Purchase orders should be sent to the Office of Educational Testing, Research & Service.

Send order to:

Office of Educational Testing, Research & Service
Institute for Research on Human Development
University of Illinois at Urbana-Champaign
51 Gerty Drive
Champaign, IL 61820

Telephone: (217) 333-4585

Price for the Local Assessment Package is $100.

Appendix B
LAP WORKSHEET

Title of Test or Course: _____.

Schools/Sections

Sch#	SchName (20 chars. max)	Section#	SectionName (5 chars. max)
1	_____	01	_____
		02	_____
		03	_____
2	_____	01	_____
		02	_____
etc.			

Goal Description

Goal Number	Description (up to 10 lines of text each)
1	_____
	_____
	_____
2	_____
	_____
	_____
etc.	

Goals/Objectives

Goals	Obj #	Obj Label (5 char.max.)
1	1	_____
	2	_____
	3	_____
2	4	_____
	5	_____
	6	_____
	7	_____
etc.		

Items/Objective(s)

Itm/Obj(s) (sample)		Itm/Obj(s)	
1	1 4	1	_ _ _
2	1 4 5	2	_ _ _
3	1	3	_ _ _
4	1 6	4	_ _ _
5	3 7	5	_ _ _
6	2	6	_ _ _
7	4	7	_ _ _
8	5	8	_ _ _
9	6	9	_ _ _
etc.		etc.	

Mastery of Objectives

Obj	# Items	# for Mastery
1	_	_
2	_	_
3	_	_
4	_	_
5	_	_
6	_	_
etc.		

Appendix C
Optional LAP Reports on Item Percent Corrects

Item Percent Corrects, by Goal

Course: Reading Exam 6 School: Westside Date: 3/20/1989

LEARNER GOAL 1 : Language Arts
State Goal for Learning 1A:
Recognition, recall, and summarization of material read.

ITEM SUMMARY: A listing of items in numerical order

Item Number	Percent Correct per Section (Size) Glow (26)	Trapp (25)	Yuen (26)	Zack (28)	Stone (29)	...	Average Percent Correct School (226)	District (315)
1	65.4	96.0	42.3	78.6	72.4	...	75.2	78.1
2	88.5	84.0	73.1	75.0	82.8	...	82.7	86.0
3	46.2	48.0	50.0	57.1	55.2	...	55.8	59.0
4	65.4	72.0	53.8	75.0	65.5	...	72.6	75.2
5	88.5	84.0	80.8	89.3	89.7	...	86.7	87.3
6	46.2	52.0	42.3	71.4	51.7	...	57.5	57.1
7	53.8	48.0	50.0	64.3	51.7	...	59.3	61.9
.	.						.	.
.	.						.	.
.	.						.	.
96	30.8	28.0	38.5	57.1	37.9	33.	46.9	48.9
97	26.9	24.0	15.4	21.4	24.1	11.	25.2	26.7
Total	64.2	58.0	53.4	64.7	61.3	48.	63.6	65.3

Appendix C (continued)

Sorted Item Percent Corrects, By Goal

Course: Reading Exam 6 School: Westside Date: 3/20/1989

LEARNER GOAL 1 : Language Arts
State Goal for Learning 1A:
Recognition, recall, and summarization of material read.

SORTED ITEM SUMMARY: Items sorted from easiest to hardest (at the District Level)

Item Number	Percent Correct per Section (Size) Glow (26)	Trapp (25)	Yuen (26)	Zack (28)	Stone (29)	...	Average Percent Correct School (226)	District (315)
8	84.6	92.0	69.2	96.4	86.2	...	87.6	89.2
9	92.3	96.0	80.8	85.7	89.7	...	88.9	88.9
5	88.5	84.0	80.8	89.3	89.7	...	86.7	87.3
2	88.5	84.0	73.1	75.0	82.8	...	82.7	86.0
11	80.8	76.0	73.1	82.1	93.1	...	83.6	85.1
15	84.6	72.0	80.8	82.1	75.9	...	79.2	81.9
18	92.3	84.0	80.8	71.4	69.0	...	81.4	81.6
13	80.8	80.0	73.1	75.0	82.8	...	78.8	79.7
16	84.6	68.0	65.4	67.9	86.2	...	77.4	79.4
10	84.6	80.0	61.5	85.7	79.3	...	78.3	79.0
.	.						.	.
.	.						.	.
.	.						.	.
97	26.9	24.0	15.4	21.4	24.1	...	25.2	26.7
95	34.6	8.0	7.7	21.4	13.8	...	20.4	21.0
Total	64.2	58.0	53.4	64.7	61.3	...	63.6	65.3

Appendix C (continued)

Sorted Items Percent Corrects

Course: Reading Exam 6 School: Westside Date: 3/20/1989

SORTED ITEM SUMMARY: Items sorted from easiest to hardest
(at the District Level)

Item Number	Percent Correct per Section (Size) Glow (26)	Trapp (25)	Yuen (26)	Zack (28)	Stone (29)	...	Average Percent Correct School (226)	District (315)
8	84.6	92.0	69.2	96.4	86.2	...	87.6	89.2
9	92.3	96.0	80.8	85.7	89.7	...	88.9	88.9
58	88.5	88.0	80.8	75.0	86.2	...	85.0	87.6
5	88.5	84.0	80.8	89.3	89.7	...	86.7	87.3
74	80.8	100.0	76.9	85.7	79.3	...	85.0	86.3
2	88.5	84.0	73.1	75.0	82.8	...	82.7	86.0
66	84.6	68.0	76.9	85.7	82.8	...	82.3	85.1
11	80.8	76.0	73.1	82.1	93.1	...	83.6	85.1
59	80.8	76.0	76.9	85.7	72.4	...	81.4	83.5
15	84.6	72.0	80.8	82.1	75.9	...	79.2	81.9
.	.						.	.
.	.						.	.
.	.						.	.
97	26.9	24.0	15.4	21.4	24.1	...	25.2	26.7
95	34.6	8.0	7.7	21.4	13.8	...	20.4	21.0
Total	55.5	53.6	51.4	63.1	55.9	...	59.4	61.2